BAY-DELTA WATERSHED PUBLIC AND CONSERVATION LANDS STATUS AND TRENDS REPORT

Draft 1/24/00

Purpose:

To compile and report geographic information about historical, existing and proposed conservation land ownership and land use/cover in the Bay-Delta and its tributary watershed.

Intended Use:

This Status and Trends Report:

- is a dynamic document that will require updating as new information develops and changes occur, and is intended to show changes and trends in public/conservation land ownership and use.
- should be used as a planning tool to support conservation and restoration planning and implementation.
- is not intended to identify every public-owned parcel in the watershed.
- is not intended to provide a definitive accounting of conservation land ownership or use.

Some Potential Participants:

CALFED Agencies
Conservation Non-Profit Organizations
Water Agencies
California Farm Bureau
Great Valley Center

Geographic Scope (In order of proposed priority for development):

Delta
North Bay and Suisun Marsh
San Joaquin Valley
Sacramento Valley (update and expand on NCWA Report)
Upper Watersheds

Milestones:

- Draft report on Delta Region (existing ownership information) - Spring 2000
- Draft report(s) on Bay, Marsh, and San Joaquin Valley (existing ownership information) - Summer 2000
- New information on ownership for all regions except upper watersheds in draft by end of year 2000
- Draft Status and Trends Report for Bay-Delta watershed – Spring 2001 (?)

Staffing and Resource Needs:

Program Manager:	Wendy Halverson Martin
Project Manager:	Ray McDowell
Staff:	Up to 1.5 FTE consultants (depending on workload, availability of existing data, and contributions from CALFED Agencies)

- Consultant will assist with development of the Land Use/Cover Classification, Spatial Analysis, and Status and Trends Report
- USBR will be the Lead Agency for Updating Public Land Ownership (Additional State and Federal Agency Staff Commitments Will be Required)

Develop Outreach Strategy:

Scientific/Technical Workgroup – This workgroup will include staff (including Geographic Information System expertise) from USBR, BLM, USFWS, DFG, USFS, DOC and other CALFED agencies and stakeholders. The workgroup will provide input on availability of GIS data, appropriate use of geospatial data and spatial analysis, classification systems used in existing databases, and potential additional mapping required.

Public input and information sharing – The Ecosystem Roundtable will be used as the primary forum to take stakeholder and general public input, and provide updates on the progress of compiling and developing geographic information on land ownership and land use in the Bay-Delta watershed. (Additional Stakeholder/Public Outreach meetings may be scheduled if needed.)

Contents:

Historical Context
- Narrative summary of status and trends in habitat distribution and conservation land ownership and use (past to present).
- Conversion of lands to urbanization
- Conversion of lands to habitat

Contents (continued):

Existing government and conservation organization land ownership
- Maps at a working scale of 1:100,000
- Some GIS information currently exists for several agencies/organizations
- GIS information needs to be updated or developed

Existing use of government and conservation organization lands
- Nomenclature and categories need to be developed and standardized
- Information on existing government land use needs to be developed and compiled

Future Efforts of Bay-Delta Watershed Conservation and Restoration Programs

Potential Issues:

Type of ownership – government fee title vs. conservation easement vs. private
Many parcels within agency boundaries have different ownership status. For example, several National Wildlife Refuges contain private land (including conservation easements) within their designated boundaries. In some cases, these lands remain private and are maintained in productive agricultural uses. Consequently, information must be collected within and beyond just boundaries of public conservation land.

Scale/Resolution of existing information
Agencies have collected boundary information at many different scales. Although some of the existing information on public conservation land has been collected at resolutions higher than 1:24,000 (e.g., 1 inch on the map equals 2000 feet on the ground)---which hopefully means the boundaries are fairly accurate, much of the information has been collected at lower resolutions like 1:100,000. It is probably prohibitively expensive to undertake a parcel-level survey of ownership and create parcel boundaries to match the survey in the Bay-Delta and tributary watersheds. Moreover, a parcel-level survey may not provide much additional value for the potential cost involved. In cases where digital information received from agencies/organizations is at a resolution lower than 1:100,000, we will attempt to acquire and digitize boundary information at (at least) 1:100,000.

Difficulty in defining land use, potential for multiple uses
Often, depending on season, rainfall, flooding, contractual relationships, and other factors, land is used for multiple purposes. For example, in dry years, much of the land in the Yolo Bypass is maintained in agricultural use nearly year-round. However, in wet years much of the land in the Bypass is inundated with flood flows from the Sacramento, Feather, and tributary Rivers for a significant portion of the year, potentially affecting the type of crop farmers are able to plant. Some rice fields in the Sacramento Valley are seasonally flooded for waterfowl. And though they provide foraging habitat for wintering waterfowl, these fields would not be considered "protected habitat." Portions of the Dye Creek Preserve in the Sacramento Valley foothills, though owned and

managed by The Nature Conservancy to improve habitat for several species, are grazed and remain part of a working ranch. We will have to work diligently with stakeholders and members of the Scientific/Technical Workgroup to come up with appropriate classification systems for stewardship (i.e., levels of habitat protection), land use, and habitat types.

Overlapping information - eliminating double counting

Without discreet, high quality spatial information about the distribution of public conservation land, there is a risk that some double counting will occur with just tabular information. We will work to minimize the potential for double counting by checking polygons of ownership for overlap. Of course, at a scale of 1:100,000 and with errors in digital geospatial information we receive likely, some minor slivers of overlap may occur. We will document the limitations of the data as well as sources and lineage of GIS data, to the extent that information is available.

Multiple Dates for Source Imagery/Photography and Land Use/Cover Classifications

At the moment, one up-to-date, classified, Valley-wide source of imagery does not exist. The Dept. of Fish and Game, USFWS, and Ducks Unlimited have used 1993 satellite imagery to create Valley-wide wetland, riparian, and farmland GIS databases. As part of its Statewide land and water use analysis, DWR is updating cropping/land cover information for Central Valley counties with different years of aerial photography (i.e., Yolo – 1997, San Joaquin – 1996, Solano – 1994, Contra Costa – 1995). Dept. of Conservation, Farmland Mapping & Monitoring Program maps farmland conversion every two years using high altitude aerial photography.